

Update on ARB's Emission Reduction Plan for Ports and Goods Movement in California



Integrating Work Group
Goods Movement Action Plan
November 17, 2006 Sacramento



Air Resources Board
California Environmental Protection Agency

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Goods Movement Action Plan

Key Principle

"Simultaneous and continuous improvement"

- ARB Emission Reduction Plan identifies air quality strategies to reduce existing impacts and mitigate growth

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Overview

- Plan goals
- Progress on plan strategies
- Local focus
- Updates to health analysis
- What's next

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ARB Goals for Good, Movement (April 2006 Emission Reduction Plan)

Reverse growth in emissions

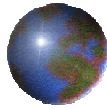
- By 2010, reduce emissions as much as possible, at least to 2001 levels

Reduce diesel PM risk

- Rapid reduction in community risk
- By 2020, reduce statewide risk 85%

Attain federal PM_{2.5} & ozone standards

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Progress on Plan Strategies

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Ships - Accomplishments

- ✓ Auxiliary ship engine fuel rule adopted
- ✓ Cruise ship incineration rule adopted
- ✓ Lower vessel speeds in S. California
- ✓ Retrofit demonstration in progress



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***Ships* - Upcoming through 2007**

California

- Main engine fuel rule (late 2007)
- Shore power rule (late 2007)
- Speed reduction rule (mid-2007)



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***Ships* - Upcoming through 2007**

National/international

- IMO review of ship and standards
- SOx Emission Control Area (SECA) technical analysis for North America
- US EPA new main engine proposal
- US EPA new auxiliary engine standards



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Harbor Craft - Accomplishments

- ✓ Low sulfur diesel used in South Coast
- ✓ Draft harbor craft rule released
- ✓ Engine replacement continues



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Harbor Craft - Upcoming through 2007

- Harbor craft rule (mid-2007)
- US EPA new harbor craft engine standards



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***Trucks* - Accomplishments**

- ✓ In-use compliance rule adopted
- ✓ Border trucks rule adopted
- ✓ Low sulfur diesel fuel used
- ✓ Cleaner 2007 engines introduced
- ✓ Inspections in impacted communities



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***Trucks* - Upcoming through 2007**

- ⚡ Private truck fleets rule (mid-2007)
- ⚡ Port trucks rule (late 2007)



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***Locomotives* - Accomplishments**

- ✓ Low sulfur diesel fuel requirements
- ✓ Tier 2 locomotive use increasing
- ✓ Cleaner switchers being introduced
- ✓ Technology demonstrations underway



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***Locomotives* - Upcoming through 2007**

- ✚ Railyard risk assessments
- ⦿ US EPA standards for new and existing locomotives



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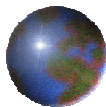


Cargo Handling Equipment - Accomplishments

- ✓ Diesel equipment rule adopted
- ✓ Gas forklift rule adopted
- ✓ Low sulfur diesel fuel used
- ✓ Port fleet upgrades continuing



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Local Focus

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Localized Health Risk

- New risk assessments underway
 - Railyards & adjacent communities
 - Maritime Port of Oakland
 - Warehouse distribution center assessment study
- Wilmington community project

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Railyard Risk Assessments **Phase I**

BNSF

Commerce/Eastern
Hobart
Richmond
Stockton
Watson/Wilmington

UP

Commerce
LA Transportation
Center
Mira Loma
Stockton



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West Oakland Risk Assessments



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Wilmington Community Project

- Local Advisory Group exploring community concerns
- Associated Harbor Air Monit



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Southern California

- San Pedro Bay Ports Clean Air Action Plan for Los Angeles and Long Beach
- Multi-County Goods Movement Action Plan



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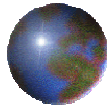


Northern California

- Port of Oakland and Bay Area Air District
- Northern California Trade & Mobility Corridor



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Updates to Health Analysis

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Health Impacts - Background

- ⊕ Analysis in Emission Reduction Plan
- ⊕ New PM studies on premature death
- ⊕ Sulfate PM impacts to be assessed
- ⊕ Board's charge -- reevaluate effect of new health studies and estimate impacts from sulfate PM

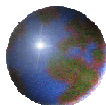
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Health Impacts - Status

- Public process to update PM-premature death relationship on-going
 - New factor based on U.S. EPA's Expert Elicitation for PM
 - Draft ARB report late November, followed by public and peer review
- Sulfate impacts to be based on SOx Emission Control Area (SECA) analysis

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What's Next

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Transitioning to New SIPs **Focus on South Coast & San Joaquin Valley**

- Goods movement is core of strategy
- PM2.5 (2014): Ships, trucks, and locomotives key to SOx/dPM/NOx cuts
- Ozone (2020+): Trucks, ships, and locomotives key to NOx cuts
- Both areas may need additional, targeted NOx reductions for trucks

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Goods Movement **ARB "To Do" List**

- Develop/enforce ARB rulemakings
- Implement \$1 billion funding program
- Push federal/international standards
- Support local initiatives
- Conduct risk assessments
- Update health impacts analysis

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